

PROJECT DESCRIPTION (MOT PHASE 1)

I. GENERAL:

THIS PARTIAL SIGNAL RECONSTRUCTION AT MD 185 (CONNECTICUT AVE) AND JONES BRIDGE ROAD/KENSINGTON PARKWAY IS A PART OF THE BETHESDA BRAC INTERSECTION IMPROVEMENTS IN MONTGOMERY COUNTY. IMPROVEMENTS WILL INCLUDE PROVIDING ADDITIONAL LANES TO EACH LEG OF THE INTERSECTION, RELOCATING THE IMPACTED SIGNAL POLES, UPGRADING TO COUNTDOWN PEDESTRIAN SIGNAL HEADS, UPDATING THE EXISTING TRAFFIC SIGNAL HEADS TO LED, AND PROVIDING ACTUATION AND TRAFFIC SAMPLING THROUGH VIDEO DETECTION.

DURING THIS PHASE OF THE RECONSTRUCTION, SIGNAL POLE AND MAST ARM WILL BE INSTALLED IN THE NORTHWEST CORNER; COUNTDOWN PEDSTRIAN SIGNAL HEADS AND AUDIO PUSHBUTTONS WILL BE INSTALLED FOR THE WEST LEG OF THE INTERSECTION; AND TEMPORARY SIGNAL HEADS AND SIGNS WILL BE INSTALLED ON TEMPORARY SPAN WIRE ACROSS WEST LEG OF INTERSECTION DURING THE INSTALLATION OF THE POLE AND MAST ARM. INTERSECTION DETECTION SHALL BE UPDATED TO VIDEO DETECTION DURING THIS PHASE.

MD 185 (CONNECTICUT AVENUE) IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

II. INTERSECTION OPERATION:

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULLY-ACTUATED MODE, WITH THE MD 185 APPROACHES RUNNING CONCURRENTLY. EXCLUSIVE LEFT-TURN PHASES SHALL BE PROVIDED FOR THE DOUBLE LEFT-TURN FROM EASTBOUND JONES BRIDGE ROAD TO NORTHBOUND MD 185, AND KENSINGTON PARKWAY SHALL BE PROVIDED WITH INDEPENDENT PHASE. PEDESTRIAN MOVEMENT WILL BE RESTRICTED FOR THE WEST LEG CROSSING OF JONES BRIDGE ROAD; HOWEVER, THE REMAINING INTERSECTION CROSSINGS WILL CONTINUE TO FUNCTION UNDER THE EXISTING PEDESTRIAN SIGNAL OPERATIONS (CURRENTLY, THERE IS NO CROSSING FOR THE NORTH LEG OF MD 185).

III. SPECIAL NOTES:

- THE APS PUSHBUTTONS AND CENTRAL CONTROL UNITS SHALL BE DELIVERED TO MR. ROBERT RICKETTS AT THE MONTGOMERY COUNTY TECHNICAL CENTER, 1283 SEVEN LOCKS ROAD, ROCKVILLE, MD 20854 FOR PROGRAMMING AT LEAST THREE (3) WEEKS PRIOR TO THE BEGINNING OF WORK.
- NOTIFY MR. ROBERT RICKETTS (301-279-1975), MR. MIKE KINNEY (240-777-8760) AND MR. KAMAL HAMUD (240-777-8761) AT LEAST 72 HOURS PRIOR TO THE BEGINNING OF WORK.

PROJECT CONTACTS:

1. THE FOLLOWING ARE THE CONTACT PERSONS FOR THIS PROJECT:

MS. CEDRIC WARD, ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (301) 513-7358

MR. DUANE BERNARD, ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
PHONE: (301) 513-7385

MR. VERNON STINNETT, ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (301) 513-7304

MR. VICTOR GRAFTON, UTILITY ENGINEER
PHONE: (301) 513-7350

MR. DAN MANTYK, CHIEF - TRAFFIC CONTROL DEVICE INSPECTION
PHONE: (443) 572-5228

MR. RICHARD DAFF, CHIEF - TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

MR. EDWARD RODENHIZER, CHIEF - SIGNAL SHOP
PHONE: (410) 787-7652

MR. SONNY BAILEY, CHIEF - SIGN SHOP
PHONE: (410) 787-7676

MR. ROBERT RICKETTS - MONTGOMERY COUNTY
PHONE: (301) 279-1975

MR. KAMAL HAMUD - MONTGOMERY COUNTY
PHONE: (240) 777-8761

MR. MIKE KINNEY - MONTGOMERY COUNTY
PHONE: (240) 777-8760

THE POWER COMPANY REPRESENTATIVE

MR. PAUL WILSON
PEPCO-DISTRIBUTION ENGINEERING
201 W. GUDE DRIVE
ROCKVILLE, MD 20850
(301) 548-4332

2. MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING THE STANDARD PLATES FOR TRAFFIC CONTROL FROM SECTION MD 104.00 OF THE SHA BOOK OF STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES.

EQUIPMENT LIST 'A'

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION AND INSTALLED BY THE CONTRACTOR.

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
900000	1 EA	VIDEO DETECTION INTERFACE UNIT 5-8 CAMERAS
973023	59 SF	FLAT SHEET ALUMINUM SIGNS CONSISTING OF:
1 EA		R3-2 "NO LEFT TURN" (30"x30") MAST ARM-MOUNTED
1 EA		R3-5R "RIGHT ONLY" (30"x36") MAST ARM-MOUNTED
1 EA		R3-5L "LEFT ONLY" (30"x36") MAST ARM-MOUNTED
1 EA		R3-6R "THROUGH AND RIGHT" (30"x36") MAST ARM-MOUNTED
2 EA		R10-3(1) "PUSH BUTTON TO CROSS JONES BRIDGE ROAD" (9"x15") POLE-MOUNTED (TO BE BAGGED)
3 EA		R10-11b "NO TURN ON RED" (24"x24")
2 EA		R3-18 "NO LEFT/U-TURNS" (30"x30")
1 EA		D-3(1) "KENSINGTON, PKWY, diagonal UP-ARROW" (VAR. X 16")

EQUIPMENT LIST 'B'

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
203030	1 CY	TEST PIT EXCAVATION
800000	1 LS	REMOVE AND DISPOSE OF EXISTING EQUIPMENT
800000	2 EA	40' CLASS II WOOD POLE
800000	1 EA	2 WIRE CENTRAL CONTROL UNIT
800000	7 EA	VIDEO DETECTION CAMERA, ANY LENGTH CABLE TO CONTROLLER
800000	2 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON & SIGN
800000	2 EA	16" LED COUNTDOWN PEDESTRIAN SIGNAL HEAD
801004	13 CY	CONCRETE FOR SIGNAL FOUNDATIONS
802501	600 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805125	30 LF	2 INCH SCHEDULE 80 RIGID PVC CONDUIT- TRENCHED
805135	30 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT- TRENCHED
805140	30 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT- TRENCHED
805155	270 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT- SLOTTED
811001	2 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813015	59 SF	INSTALL OVERHEAD SIGN
818004	2 EA	10' BREAKAWAY PEDESTAL POLE
818036	1 EA	STEEL POLE WITH A SINGLE 50' MAST ARM
818052	1 EA	STEEL POLE WITH A SINGLE 70' MAST ARM
831010	3 EA	250 WATT HPS LAMP AND LUMINAIRE
837001	2 EA	GROUND ROD - 3/4 INCH DIA. X 10 FOOT LENGTH
860284	33 EA	12" LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861105	280 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	430 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	2500 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
861116	1040 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG) TRAY
866103	3 EA	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE
869102	150 LF	STEEL SPAN WIRE - 3/8 INCH DIAMETER

NOTE:

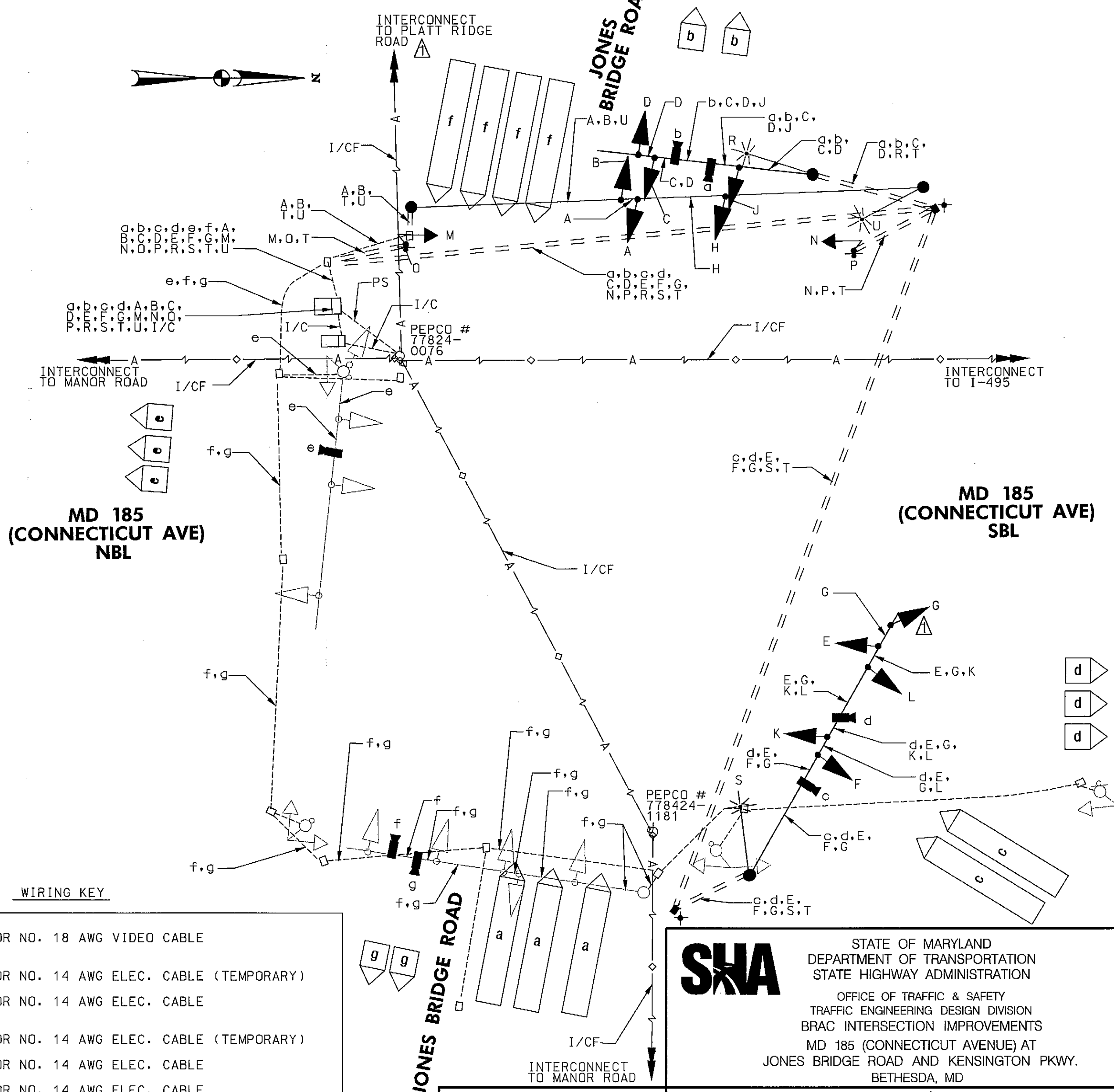
- PEDESTRIAN SIGNAL # 22 & #23 AND THEIR ASSOCIATED PUSHBUTTONS AND SIGNS WILL BE BAGGED UNTIL THE START OF PHASE 2A CONSTRUCTION.
- SIGNAL HEADS #7, 14, AND 15 ON THE PROPOSED SIGNAL POLE MAST ARM IN THE NORTHWEST CORNER OF THE INTERSECTION WILL BE BAGGED UNTIL THE START OF PHASE 2A CONSTRUCTION.

PHASE CHART

	1a	2	3	4	5a	6a	7	8	9a-9	10	11	12	13	14	15	16	17	18a	19a	20a	21a	22	23	24a	25a
Phase 1	R	R	R	R	R	R	G	G	←R←	←R←	←R←	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
1 Change	R	R	R	R	R	R	Y	Y	←R←	←R←	←R←	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
Phase 2 & OL/14	G	G	G	G	G	G	R	R	←R←	←R←	←R←	R	R	R	R	R	R	WK	WK	WK	WK	WK	WK	WK	WK
Ped. Clear	G	G	G	G	G	G	R	R	←R←	←R←	←R←	R	R	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	FL/DW	FL/DW	FL/DW	FL/DW
2 & OL/14 Change	Y	Y	Y	Y	Y	Y	R	R	←R←	←R←	←R←	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
Phase 3 & 8	R	R	R	R	R	R	R	R	←G←	←G←	←G←	G	G	G	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
3 Change	R	R	R	R	R	R	R	R	←Y←	←Y←	←Y←	G	G	G	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
Phase 4 & 8	R	R	R	R	R	R	R	R	←R←	←R←	←R←	G	G	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW
4 & 8 Change	R	R	R	R	R	R	R	R	←R←	←R←	←R←	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
Phase ALT 8	R	R	R	R	R	R	R	R	←R←	←R←	←R←	G	G	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW
Ped. Clear	R	R	R	R	R	R	R	R	←R←	←R←	←R←	G	G	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW
ALT 8 Change	R	R	R	R	R	R	R	R	←R←	←R←	←R←	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/RA	FL/RA	FL/RA	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

- PROPOSED SIGNAL HEAD, #a - EXISTING SIGNAL HEAD, #r - TEMPORARY SIGNAL HEAD

WIRING DIAGRAM



WIRING KEY

a,b,c,d,g	-	3 CONDUCTOR NO. 18 AWG VIDEO CABLE
e,f,g	-	
A,B	-	7 CONDUCTOR NO. 14 AWG ELEC. CABLE (TEMPORARY)
C,D,E,F,G	-	7 CONDUCTOR NO. 14 AWG ELEC. CABLE
H	-	5 CONDUCTOR NO. 14 AWG ELEC. CABLE (TEMPORARY)
J,K,L,M,N	-	5 CONDUCTOR NO. 14 AWG ELEC. CABLE
O,P	-	2 CONDUCTOR NO. 14 AWG ELEC. CABLE
R,S	-	2 CONDUCTOR NO. 12 AWG ELEC. CABLE (TRAY)
U	-	2 CONDUCTOR NO. 12 AWG ELEC. CABLE (TRAY) - TEMP.
T	-	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
I/CF	-	EXISTING INTERCONNECT CABLE AND FIBER OPTIC CABLE
I/C	-	EXISTING INTERCONNECT CABLE
PS	-	PROPOSED SERVICE FEED
+	-	GROUND ROD (3/4" DIA. X 10' LENGTH)

CENTURY
ENGINEERING
CONSULTING ENGINEERS - PLANNERS
10710 GILROY ROAD
HUNT VALLEY, MD 21031

REVISION 'C' 23299.62

PHASE 1

SHA

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
BRAC INTERSECTION IMPROVEMENTS
MD 185 (CONNECTICUT AVENUE) AT
JONES BRIDGE ROAD AND KENSINGTON PKWY.
BETHESDA, MD

MOT PHASE 1 - GENERAL INFORMATION PLAN

SCALE: NONE ADVERTISED DATE: OCTOBER 2011 CONTRACT NO. MO5935570

DESIGNED BY: ENB COUNTY: MONTGOMERY

DRAWN BY: ENB LOGMILE: 15018502.22

CHECKED BY: MR. ZNR TMS NO.:

F.A.P. NO. TOD NO.:

TS NO. 2649C DRAWING SG-02.1 OF 12 SHEET NO. 102 OF 123